



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/813,153

03/30/2004

Jean-Pierre Leblanc

2022D.PC

5423

35157

7590

04/10/2008

NATIONAL STARCH AND CHEMICAL COMPANY

P.O. BOX 6500

BRIDGEWATER, NJ 08807-3300

EXAMINER

VENKAT, JYOTHSNA A

ART UNIT

PAPER NUMBER

1615

NOTIFICATION DATE

DELIVERY MODE

04/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@nstarch.com

Office Action Summary	Application No. 10/813,153	Applicant(s) LEBLANC ET AL.	
	Examiner JYOTHSNA A. VENKAT Ph. D	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-20 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-20 and 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of Appeal Brief filed on 2/22/07. In view of Appeal conference, prosecution is resumed. Claims 17-20 and 22-28 are pending in the application.

Claim Rejections - 35 USC § 112

Claims 17-18 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for method of treating skin *drawn to SPF protection using sunscreen compositions having anionic polyurethane and polyacrylate as the second solubilized polymer*, does not reasonably provide enablement for *method of treating skin (any skin conditions) using any skin care composition comprising anionic polyurethane and any second solubilized polymer*. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is “undue”. See ***In re Wands, 858 F.2d 731, 737, 8 USPQ 2d 1400, 1404 (Fed. Cir. 1998)***. The court set forth the eight factors to consider when assessing if a disclosure would require undue experimentation. Citing *Ex parte Forman, 230 USPQ 546*, the court recited eight factors

These factors include, but are not limited to:

- 1) *The breadth of the claims,*
- 2) *The nature of the invention,*
- 3) *The state of the prior art,*

- 4) The level of one of ordinary skill,*
- 5) The level of predictability in the art,*
- 6) The amount of direction provided by the inventor,*
- 7) The existence of working examples*
- 8) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.*

(1 and 2) The breadth of the claims and the nature of the invention: The claims are drawn method of treating skin comprising applying to the skin, a skin care composition comprising neutralized, solubilized anionic polyurethane and at least one solvent and composition further comprising a second solubilized polymer (claim 18).

(6-7) The amount of direction provided by the inventors and the existence of working examples: Applicants have provided examples drawn to moisturizing lotions, skin tightening compositions and sunscreen formulations. Specification at pages 16-18 showed test results using sunscreen formulations for SPF protection. Test shows that sunscreen formulations are effective using anionic polyurethane and polyacrylate in providing SPF protection. There is no data for SPF protection using anionic polyurethane and polymethacrylate of claim 19 or the combination of anionic polyurethane with various solubilized polymers like, acrylamide/methacrylamide-based polymers, and polymers derived from other monomers such as maleic anhydride, maleates, butadiene, styrene and its derivatives, vinyl esters, isobutylene, maleimide and substituted maleimides, vinyl pyrrolidone and its derivatives, polyvinyl caprolactam, itaconic acids and its esters, alkenes such as eicosene, zwitterionic monomers,

Art Unit: 1615

acrylamidopropyltrimethylammonium chloride and vinylimidazolium chloride, polyesters, polyethers, polyamides, polyesteramides, polyoxazolines, polyols, polyalkylene glycols, other urethane-containing polymers, hydrogels, silicones and silicone-containing copolymers, natural and modified polymers such as cellulose, starches, xanthan, shellac, alginates, guar 5 and other natural and modified gums. There is no structural similarity between all these solubilized polymers.

Method of treating skin claimed in the instant application includes treating skin for various disorders. The skin disorders are:

- i) Dermatitis including Contact Dermatitis, Atopic Dermatitis, Seborrheic Dermatitis, Nummular Dermatitis, Diaper rash
- ii) Bacterial Infections including Cellulitis, Cutaneous Abscesses, Necrotizing Subcutaneous Infections, Staphylococcal Scalded Skin Syndrome
- iii) Disorders of Sebaceous Glands including Acne, Rosacea, Perioral Dermatitis,
- iv) Scaling Papular Diseases including Psoriasis, Pityriasis Rosea, Lichen Planus, Pityriasis Rubra Pilaris;
- v) Pigmentation Disorders including Hypo pigmentation such as Vitiligo, Albinism and Post inflammatory hypo pigmentation and Hyper pigmentation such as Melasma (chloasma), Drug-induced hyper pigmentation, Post inflammatory hyper pigmentation.

Method of treating skin also includes treating skin for fine lines, wrinkles, sagging skin, dry skin and oily skin.

The etiology for all the disorders is different. There is no data with respect to treating skin for all the above disorders or treating skin for any disorder using skin care

Art Unit: 1615

compositions comprising anionic polyurethane (polymer) and all the solubilized polymers.

(8) The quantity of experimentation needed to make or use the invention based on the content of the disclosure: The claims recite “method of treating skin” using skin care compositions comprising anionic polyurethane and further comprising solubilized polymer. Specification at paragraph bridging pages 2-3 describes various polymers. The polymers can be natural or synthetic polymers. The synthetic polymers can be homopolymers or copolymers or cationic polymers or zwitterionic polymers. Thus there are numerous polymers belonging to solubilized polymers claimed in claim 18. Method of treating skin includes various disorders for treating skin. However, the instant specification gives one skilled in the art no indication that one could use the combination of anionic polyurethane and any solubilized polymer for treating skin (any skin condition) and have reasonable expectation of success. Therefore further testing would be necessary to use the claimed invention and the practice of the full scope of the invention would require undue experimentation.

Claim Rejections - 35 USC § 103

1. Claims 17-20, and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U. S. Patents 6,010,686 ('686) and 5,626,840 ('840) and 6,264,933 ('933).

Instant application is claiming a method of treating skin comprising:

1. Neutralized, solubilized anionic polyurethane

2. Solvent

3. Second polymer (polymethacrylate is the species, claims 18-20)

Art Unit: 1615

The specification defines "solubilized urethane" as urethane being soluble in solvent.

Patent '686 teaches cosmetic composition using a polymeric system, which contains one film-forming polymer and use of this composition on the skin. See the abstract, see col.1, ll 1-16.

Patent '686 at col.2, ll 10-26 teaches:

10 The composition according to the invention makes it possible to obtain a homogeneous film which has a light texture and remains comfortable to wear all day long. The film is not at all sticky, while being soft, supple, elastic and
15 flexible on the skin; it follows the movements of the support on which it is applied without cracking and/or lifting off. It adheres completely to the lips. The composition according to the invention therefore is particularly advantageous as a composition for application to the lips, especially as lip
20 rouge. The composition according to the invention also is particularly advantageous as a composition for application as an eyeliner.

25 Furthermore, the film obtained in accordance with the present invention can be very glossy or more or less matte, depending on the nature of the particular constituents of the composition. This results in a wider range of make-up products which can be made glossy or matte at will.

Patent at col.2, ll 35-40 teaches various polyurethanes and this includes anionic polyurethane. Patent at col.4, ll 10-24 teaches:

Art Unit: 1615

- 10 In the present description "dispersion of film-forming polymer" is intended to mean a dispersion capable of forming a film, including or not including a coalescing agent.
- 15 The solids content of the aqueous dispersions according to the present invention may range from 5 to 60% by weight, and preferably range from 30 to 40% by weight.
- The composition of the invention may include from 1 to 60% by weight, preferably from 5 to 40% by weight, of dry solids of film-forming polymers.
- 20 The particle size of the polymers in aqueous dispersion may range from 10 to 500 nm and preferably ranges from 20 to 150 nm, which makes it possible to obtain a film which has a remarkable gloss.

Patent at col.4, ll 40-45 teaches plasticizing agent and this includes water soluble solvents and water insoluble solvents. Patent at col.4, ll 50-62 teaches various glycol derivatives. Patent at col.5, ll 22-30 suggests adding additives like acrylic polymer into the compositions. See examples and see claim 2 for anionic polyurethane. Patent does not teach neutralized polyurethane.

Patent '840 teaches claimed anionic solubilized neutralized polyurethanes. Patent '840 teaches anionic polyurethanes which can be soluble or dispersible in water. See the abstract, and see col.2, ll 16-19 for the weight percent. Patent at col.5, lines 52-63 teaches:

Art Unit: 1615

Neutralization renders the polymers soluble or dispersible in water for easy formulation into aqueous hair sprays (and thus contributes to removability). The neutralized polymers can be formulated solely in water as the solvent, or the solvent system can be a blend of polar organic solvent and water. Typically, the organic solvent will be an alcohol or ketone. Particularly suitable solvents are low boiling alcohols that are compatible with other components in the hair fixative composition, for example, C_1 - C_4 straight or branched chain alcohols. Exemplary polar solvents are ethanol, propanol, isopropanol, butanol, acetone, dimethyl-ether and dimethoxymethane.

The difference between these patents and the instant application is they do not teach second polymer. However patent '933 teaches film forming polymer and this includes anionic polyurethane as the film forming polymer. See col.2, line 34 and see col.4, ll 5-8 for the weight percent of the polymer. Patent '933 teaches various solvents at col.4, ll 17-25. Patent at col.4, ll 30-050 teaches additional film forming polymer can be added into the compositions and this includes polyacrylates and polymethacrylates claimed in the instant application.

Accordingly it would be obvious to one of ordinary skill in the cosmetic art to prepare compositions of patent '686 and substitute the anionic film-forming polymer with another functionally equivalent film forming polymer, which is neutralized solubilized anionic polyurethane of patent '840 and add additional film forming polymer (polyacrylate or polymethacrylate) taught by patent '933 in analogous cosmetic compositions. One of ordinary skill in the cosmetic art would modify the compositions of patent '686 by using neutralized and solubilized anionic polyurethane since these anionic polyurethanes are soluble in water for easy formulations. This is a prima facie case of obviousness.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTHSNA A. VENKAT Ph. D whose telephone number is

Art Unit: 1615

571-272-0607. The examiner can normally be reached on Monday-Friday, 10:30-7:30:1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL WOODWARD can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/JYOTHSNA A. VENKAT Ph. D/
Primary Examiner, Art Unit 1615**

**/Michael P Woodward/
Supervisory Patent Examiner, Art Unit
1615**